UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,170	06/08/2000	Ryuji Kohno	192919US2	9759

22850 7590 03/28/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
PERILLA, JASON M	

ART UNIT	PAPER NUMBER
2634	

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/589,170	KOHNO ET AL.	
	Examiner	Art Unit	
	Jason M Perilla	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2004*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4,5,10-12 and 15-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☒ Claim(s) *4,5,10-12 and 15-18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 June 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 4, 5, 10-12 and 15-18 are pending in the instant application.

Claim Objections

2. Claims 4, 5, 10-12 and 15-18 are objected to because of the following informalities:

Regarding claim 4, in line 8, "the frequency" is lacking antecedent basis, in line 10, "said transmission signal" is lacking antecedent basis, in lines 11 and 16, "an output signal" should be replaced by --the output signal—or, alternatively, each instance of "an output signal" should be consecutively named as a first, second, third, ... output signal to make the claim language definite, in line 12, "the transmission channel" is lacking antecedent basis, in lines 17, 19, and 28, "a receiving channel" should be replaced by –the receiving channel-- or, alternatively, each instance of "a receiving channel" should be consecutively named as a first, second, third, ... receiving channel to make the claim language definite, in line 19-20, "a transmission channel" should be replaced by –the transmission channel--, or, alternatively, each instance of "a transmission channel" should be consecutively named as a first, second, third, ... transmission channel to make the claim language definite, and, in line 25, "the signal strength" is lacking antecedent basis.

Regarding claim 5, in line 6, "a receiving channel" should be replaced by –the receiving channel--, or, alternatively, each instance of "a receiving channel" should be consecutively named as a first, second, third, ... receiving channel to make the claim language definite,

Regarding claim 10, in line 9, "the frequency" is lacking antecedent basis, in line 11, "the time constant of said filter means" is lacking antecedent basis, in line 12, "said transmission signal" is lacking antecedent basis, in lines 13, 18, 20, and 26, "an output signal" should be replaced by --the output signal—or, alternatively, each instance of "an output signal" should be consecutively named as a first, second, third, ... output signal to make the claim language definite, in line 14, "the transmission channel" is lacking antecedent basis, in lines 18, 23, and 32, "a receiving channel" should be replaced by –the receiving channel-- or, alternatively, each instance of "a receiving channel" should be consecutively named as a first, second, third, ... receiving channel to make the claim language definite, and, in line 29, "the signal strength" is lacking antecedent basis.

Regarding claim 11, in line 9, "the frequency" is lacking antecedent basis, in line 11, "the time constant of said filter means" is lacking antecedent basis, in line 12, "said transmission signal" is lacking antecedent basis, in lines 13, 18, 20, and 26, "an output signal" should be replaced by --the output signal—or, alternatively, each instance of "an output signal" should be consecutively named as a first, second, third, ... output signal to make the claim language definite, in line 14, "the transmission channel" is lacking antecedent basis, in lines 18, 23, and 32, "a receiving channel" should be replaced by –the receiving channel-- or, alternatively, each instance of "a receiving channel" should be consecutively named as a first, second, third, ... receiving channel to make the claim language definite, in line 29, "the modulation system" is lacking antecedent basis, and, in line 31, "the discrimination result" is lacking antecedent basis.

Regarding claim 12, in line 9, "the frequency" and "said output signal" are lacking antecedent basis, in line 11, "the time constant of said filter means" is lacking antecedent basis, in line 12, "said transmission signal" is lacking antecedent basis, in lines 9, 13, 18, 20, and 25-26, "an output signal" should be replaced by --the output signal—or, alternatively, each instance of "an output signal" should be consecutively named as a first, second, third, ... output signal to make the claim language definite, in line 14, "the transmission channel" is lacking antecedent basis, in lines 18, 23, and 35, "a receiving channel" should be replaced by –the receiving channel-- or, alternatively, each instance of "a receiving channel" should be consecutively named as a first, second, third, ... receiving channel to make the claim language definite, in line 31, "the modulation system" is lacking antecedent basis, and, in line 34, "the discrimination result" is lacking antecedent basis.

Regarding claim 15, in lines 7, 14 and 19, "said [a] received signal" is lacking antecedent basis, in lines 8 and 11, "said output signal" is lacking antecedent basis, in lines 9-10, "the transmission channel" is lacking antecedent basis, in line 10, "said transmission signal" is lacking antecedent basis, in line 15, "includes signal strength measuring circuit" should be replaced by –includes a signal strength measuring circuit--, in line 16, "the signal strength" is lacking antecedent basis, in lines 16-17, "each of outputs" is lacking antecedent basis because there is no basis for antenna outputs and "said received antennas" are lacking antecedent basis, and, in line 18, "said unit selection period" is lacking antecedent basis.

Regarding claim 16, in line 3, "said received signals" is lacking antecedent basis, in line 9, "said output signal" is lacking antecedent basis, in lines 10-11, "the transmission channel" is lacking antecedent basis, in line 11, "said transmission signal" is lacking antecedent basis, in line 12, "the time constant" and "the frequency" are lacking antecedent basis, in line 18, "includes signal strength measuring circuit" should be replaced by –includes a signal strength measuring circuit--, in line 19, "the signal strength" is lacking antecedent basis, in line 20, "the output" is lacking antecedent basis because there is no basis for antenna outputs and "said received antennas" are lacking antecedent basis, in line 21, "a receiving channel" should be replaced by –the receiving channel--, in lines 22-23. "the signal strength" is lacking antecedent basis, in line 23, "said filter" should be replaced by –said loop filter--, in line 24, "to a local oscillation" should be replaced by –from a local oscillation--, and, in line 25, "at one terminal and a receiving channel at the other terminal" should be replaced by –at one frequency to a receiving channel at another frequency--.

Regarding claim 18, in line 2, "a receiving channel" should be replaced by –the receiving channel--, and in line 3, "said synthesized signal strength" should be replaced by –said signal strength synthesized--.

Appropriate correction is required.

Conclusion

3. This application is in condition for allowance except for the following formal matters:

The objections above..

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (571) 272-3055. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M. Perilla
March 11, 2005

jmp

CHIEH M. FAN
PRIMARY EXAMINER